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THEODORE CALDWELL JANEWAY

THEODORE CALDWELL JANEWAY, physician, educator, and medical investigator, was born in New York on November 2, 1872, and died in Baltimore, at the age of forty-five, on December 27, 1917. He was the son of the late Dr. Edward Gamaliel Janeway and his wife Frances Strong Rogers Janeway.

Dr. Edward Gamaliel Janeway, a distinguished consulting internist in New York City, was a man of large experience in medical practise and in medical teaching. Though he published but little, his opinion was highly valued and commanded the respect and attention of the best medical workers in his city and in the country at large. An accurate clinical observer, he laid great stress upon the control of clinical studies in fatal cases by post-mortem examinations. Direct and simple in his methods he attained to unusual proficiency in clinical diagnosis, especially from the standpoint of pathological anatomy. He was rather taciturn, and was scrupulously honest with himself and with others. Like many men who are diffident by nature, he may have seemed outwardly austere when inwardly he was full of human sympathy and affection. Strongly objective in tendency and with relatively little interest in, or patience with, mere theory, he was unwilling to go beyond ascertainable facts, and preferred to confess ignorance rather than to assume a knowledge that he did not possess. His reputation grew with the years, and patients, especially those suffering from rare and puzzling diseases, from all parts of the United States were by their home physicians referred to him for ex-

amination. His example exerted a profound influence upon his son, not only in childhood and adolescence, but also during many years of close professional association in office practise.

Frances Strong Rogers Janeway was the daughter of a minister, and of a mother who was a woman of strong character, of rare spirit and of considerable artistic talent. From his mother, Theodore Janeway inherited charm of manner, a kindly tolerance, and a warm love for all mankind.

During his boyhood in New York City, and especially in the summer vacations, Theodore Janeway became acquainted with William K. Prentice, a boy a year older than himself, and the acquaintance grew into a friendship and intimacy that lasted throughout his life. Each regarded the other as his best friend, and in ripper years the professor of Greek at Princeton and the professor of medicine at Johns Hopkins continued to prize highly this relationship.

After preparation at Cutler's School in New York, Theodore Janeway at the age of sixteen entered the Sheffield Scientific School at Yale, graduating in 1892 with the degree of Bachelor of Philosophy. Like many others who attended this school, he profited much from the influence of Chittenden, the professor of physiological chemistry, an influence that may be discernible later in his career in the interest he manifested in disorders of metabolism. As a youth, he is said to have been sensitive and high strung, interested in everything, impressing his companions with his alertness and the extraordinary activity of his mind. Though agile and fond of games, his rather delicate constitution limited his participation in college athletics. He early evinced an interest in public speaking. In the debating society to

which he belonged as a boy, it was obvious that he possessed the gift of simple, lucid and powerful expression. This stood him in good stead when he became a teacher in the medical schools; in medical societies, and in campaigns for public betterment, too, his addresses were characterized by clearness, force, and refinement. He had a feeling for the proper use of words and an ability in combining them that one could wish were more common to men of science. His natural endowments, his early associations, and his college training all contributed to make his choice of a career in medicine a wise one.

Janeway entered upon his undergraduate medical studies at the College of Physicians and Surgeons of Columbia University, and obtained the degree of Doctor of Medicine in 1895. After graduating he served as interne at St. Luke's Hospital. In his medical studies, he exhibited unusual industry and enthusiasm, and from the beginning appreciated the significance of the scientific method in medicine and realized the importance of a broad training in the natural sciences and in the preclinical medical sciences as a foundation for the best type of clinical work.

Dr. Janeway's potential ability as a teacher could not long go unrecognized. In 1898, he was appointed to an instructorship in medical diagnosis in the reorganized New York University and Bellevue Hospital Medical College; later, he was given a lectureship there, continuing his work in this institution for some eight years. It was a time of transition from an older to a newer type of medical teaching and of hospital work in New York City and he and his father, experiencing the difficulties that are common to campaigns of reform, did their best to overcome the obstacles that impeded progress in the change of policy. It was during this

period that Dr. Janeway wrote his book entitled "The Clinical Study of Blood Pressure" and devised the special form of apparatus that bears his name for the determination of blood pressure in human beings. He strove while carrying on his other work to introduce important reforms in the out-patient department of the hospital. In his teaching, he discussed the symptoms and signs upon which diagnosis is based in the light of pathological physiology, took pains to discover the etiological factors, as far as possible, in each case that he studied, and emphasized the importance of tracing the pathogenesis of a disease-process. But conditions in the college did not improve as fast as he hoped they might, and he decided to resign his position rather than to continue in work that could only be unsatisfactory to him.

Despite the severance of his connection with the medical school in which he first taught, he was afforded ample opportunity for the continuation of clinical studies by the material at the City Hospital on Blackwell's Island where he was visiting physician, and by that of the large clientele at his father's office. His friend, Dr. Horst Oertel, the pathologist at the City Hospital, was a congenial co-worker, and students of the College of Physicians and Surgeons, in optional courses, profited much from the clinics and from the demonstrations of pathological material in this hospital. In 1907, through Dr. Janeway's influence, Mrs. Russell Sage endowed the Russell Sage Institute of Pathology with the object of promoting research work at the City Hospital, and Dr. Janeway himself acted as secretary and treasurer of the institute. Here much good work was accomplished, though four years after the foundation of the institute, Dr. Janeway was impelled to resign his position as visiting physician to the City Hospital be-

cause of his strong feeling that the commissioner of charities was not sympathetic with the scientific work conducted at the hospital in cooperation with the institute.

In 1907, Dr. Janeway was made associate in medicine at Columbia University, and two years later at the age of thirty-seven, he became Bard professor of medicine in the same institution. The duties of this important chair, together with his work at the Presbyterian Hospital where he now became visiting physician, taxed his strength to the utmost, for, in addition, he continued also to carry on a private practise. The burden steadily increased during the next five years and in 1914 he was forced by ill-health to interrupt his work in order to recuperate.

In this same year, 1914, the General Education Board had set apart a million and a half of dollars, known as the William H. Welch Endowment for Clinical Education and Research for use in the Johns Hopkins Medical School in Baltimore on the condition that three of the principal clinical chairs should be placed upon a so-called "whole-time" basis. The professors at the head of these three departments were to give their whole time and energies to the work of their departments, and were not to supplement their salaries by fees from private practise; if private patients were seen, the fees collected were to go to the treasury of the institution. The chair of medicine, which had been made famous by Professor William Osler's occupancy up to 1905 was included in the reorganization. Though the two men who had led the work in internal medicine in the school from 1905 to 1914 after Dr. Osler's removal to Oxford were sympathetic with the aims of the reorganization, neither of them was able, owing to the exigencies of external circumstances, to accept the professorship of medicine under the new conditions. The medical

faculty offered the "whole-time" chair to Dr. Janeway, and he, after careful consideration, accepted it. Though the relinquishment of private practise meant a large financial sacrifice to him, and removal to Baltimore entailed separation of himself and his family from the great city in which he had thus far spent his life with all its personal relationships and its special cultural opportunities, Dr. Janeway saw how great the opportunity was and rejoiced that he could avail himself of it. He found at the Johns Hopkins Hospital, of which he became the physician-in-chief, a medical clinic organized largely in accord with his ideals for the care of patients, for laboratory work, for teaching and for investigation, alongside of other clinics similarly developed, and associated with strong departments for the promotion of the preclinical sciences. Bringing with him Dr. H. O. Mosenthal, interested in metabolic studies, as associate professor, he retained, either on his "whole-time" staff or on an associated "part-time" staff, nearly all of the workers already in the department, and quickly made the readjustments necessitated by reorganization on the "whole-time" basis. In this congenial atmosphere, where his work could be carried on with a minimum of friction, he had every expectation of a long period of satisfactory hospital practise, of well-organized departmental teaching, and of leadership of a group of able young men in quiet scientific productivity. It was tragical that the period allotted to him proved to be so brief, but in his three years of service in Baltimore he made a deep impression, winning the respect and esteem of colleagues, of pupils, and of the community at large. The authorities of the medical school, though deeply regretting a loss that seems irreparable, may always congratulate themselves on the choice of

their first "whole-time" professor of medicine, a man who combined large clinical experience with unusual teaching ability and with capacity for productive scientific study, and one who was content to give his whole time and energies to the work of the institution recompensed by an academic salary, by large opportunity for service, and by joy in the work—a pattern that the reform movement in medical education during the past three decades has been trying to construct.

At Johns Hopkins, Professor Janeway helped to plan a new building for the Hunterian Laboratory for Experimental Medicine, improved the facilities for metabolic studies, fostered researches in the heart station, and secured a substantial increase in the endowment for studies in tuberculosis known as the Kenneth Dow Fund. He was active in the Johns Hopkins Hospital Medical Society, was interested in the Historical Club, and acted as president of the Laennec Society for the Study of Tuberculosis.

Dr. Janeway was a member of the Medical Reserve Corps of the U. S. Army, and was the internist of the unit organized by the Johns Hopkins staff for work in France, now Base Hospital No. 18. When this unit was ordered abroad, he prepared to go with it, but at the last moment his place was taken by Dr. T. R. Boggs, Surgeon-General Gorgas having decided that Dr. Janeway's experience and powers could be used to greater advantage in his own office in Washington. As assistant to the Surgeon-General, Major Janeway went on active duty on June 30, 1917, and with the help of his successor at Columbia, Major Warfield T. Longcope, who acted as his chief assistant, undertook a very important task for the army, namely, the organization of that part of the medical work that had to do with diseases of the heart and

vessels. He first prepared a comprehensive and valuable circular defining the proper methods of examination of the cardiovascular system, the requirements for unconditional acceptance and the disqualifications for active service. He then organized groups of specialists, who, in conjunction with the members of the Tuberculosis Boards, made examinations of the cardiovascular system of the entire National Guard, and acted as consultants with the examiners of the drafted men in the hospitals at the cantonments. The examinations thus made have resulted in the rejection of thousands of men who were totally unfit for active service, but who would otherwise have been accepted, and in the acceptance of many normal men who would otherwise have been rejected. Major Janeway next selected from all parts of the country internists whom he recommended for the chiefs of the medical services of the cantonment hospitals. After this, he instituted, under the direction of Major Seale Harris, a circularization of the internists of the entire country with the object of obtaining suitable men for places of responsibility, and younger men for certain special services. At the time of his death, he was engaged in organizing three mobile medical units, one in the east, one in the center of the country, and one in the west; these units were intended to move from one hospital to another, assisting on the medical services in times of emergency. He had outlined plans, too, for a special hospital for the care and treatment of cardiac diseases and for investigations of military importance to be used with the United States troops abroad. This sketch of Dr. Janeway's work for the army, based upon a memorandum prepared at the Surgeon-General's office, may be supplemented by a word of personal appreciation from the Surgeon-

General himself, who says: "Dr. Janeway was an unusually good executive and his loss to our office and his country was very great. I shall find it very difficult to replace him. I came to know him quite well personally, on our inspection trips, and I was very much attracted by his personality; he was one of the best all-round men that I ever met." The record of his six months' service in the Surgeon-General's office gives some idea of the speed and tension of his work. During the autumn months, in addition to this work, he kept in touch with his department in the medical school and still held some of his clinics. It is to be feared that overwork lessened his resistance to infection. He contracted pneumonia, developed a pneumococcus septicemia and died after an illness of six days. We must think of him, therefore, as one of those who sacrificed their lives for their country in the great war.

Dr. Janeway's clarity of mind, his depth and range of vision, and his sanity of judgment made him a wise counsellor, not only of patients but also of institutions. This was very evident by the respect shown for his opinion by the faculties of the schools in which he taught, by the councils of medical organizations like the Association of American Physicians and the American Society for the Advancement of Clinical Investigation, by the Surgeon-General of the army and his associates, and by the boards of directors of scientific institutions of which he was a member. Of the latter, especial mention should be made of the board of scientific directors of the Rockefeller Institute for Medical Research. To this board he was elected in 1911 as successor to the late Dr. Christian Herter. These two men were the representatives of scientific internal medicine in the board and the service they rendered in shaping the ideals and in planning the

activities of this great institute of medical research were very important. Janeway's idealistic temperament, his firm belief in the method of science as applied to the problems of clinical medicine, his wide knowledge of theory and thorough technical training, his large experience in actual practise, and, above all, his well-developed critical faculty, made him a most helpful and sound adviser in the field that he represented in this board, and in the other advisory boards to which he belonged.

Professor Janeway's original inquiries were related especially to diseases of the circulatory apparatus and to disturbances of metabolism. His researches upon blood-pressure and upon renal function will be especially remembered. Besides his monograph on "The Clinical Study of Blood-Pressure" (1904), he contributed to the medical journals some twenty important articles upon the subjects in which he was interested. Several of these appeared in the *Archives of Internal Medicine*, of the editorial staff of which he was a member. During the last years of his life, he was engaged in writing a treatise on "Diseases of the Heart and Blood-Vessels." He had prepared a complete syllabus of the volume and all internists must regret that the production of the monograph has been prevented by his untimely death.

Besides the recognition that had come to him in the form of academic appointments and the other posts of responsibility that have been mentioned, two honorary degrees had already been conferred upon him, that of Master of Arts at Yale (1912) and that of Doctor of Science at Washington University, St. Louis (1915). Had he lived, there can be no doubt that he would have received many other honorary degrees. Very few men of worth are insensible to the acknowledgment of that worth by those whose judgment they know

to be valuable; it is well that they should not be. Dr. Janeway's character and ideals were such that he cared little for other support:

La gloire
Ne compte pas toujours les voix;
Elle les pèse quelquefois.

The support of those who have the good of internal medicine most at heart in this country Dr. Janeway undoubtedly had. But this was not indispensable to him as motive, his desire to further the science of medicine for the good of suffering mankind was to him an impelling force that was all-sufficing.

In his family life Dr. Janeway was particularly fortunate. Married in 1898 to Eleanor C. Alderson of Overbrook, Pa., he found in his wife a companion who shared his ideals, who supported him through difficulties, and who was prepared to make whatever sacrifices were necessary to permit the full employment of his energies to the attainment of any good that he deemed worthy of his effort. She and their five children, his mother, and two sisters survive him. To his home, his older friends and his students, of whom he also made friends, were cordially welcomed. He had a true and delicate ear for music and though he had no extensive musical training found pleasure and recreation in playing the violin in the family circle. Those who knew him best were charmed by his deep and ready sympathy, his quick and thorough understanding of others, and his unselfishness and generosity. His life will be an outstanding example to influence young men entering upon a career in medicine. His death, at a time when, in the ordinary course of events, he might well have been expected to give at least twenty years more of the highest kind of service to his country and to science, is one of those losses that mankind laments,

finds difficult to understand and to bear, and must some time learn how to prevent.

LEWELLYS F. BARKER

THE NEED FOR ORGANIZATION OF
AMERICAN BOTANISTS FOR MORE
EFFECTIVE PROSECUTION OF
WAR WORK¹

OUR country is now passing through one of the most critical periods in its history and the manner in which we shall emerge from this turmoil will depend on how successfully we can apply a lesson now being taught us by our arch-enemy Germany—the value of organized effort. The central empires are surpassed by the allies in manpower and in economic resources of every kind. But Germany is a marvel of organization and she has so thoroughly coordinated all her activities, especially those relating to war, that she is able to throw every ounce of her power in any direction desired. On this account she absolutely dominates her allies, and to this she owes her military efficiency and her powers of endurance. The United States and the entente nations are rapidly learning this lesson and, although the daily press is filled with stories of inaction and of clashing authority and with reports of investigations of alleged incompetency, still we see everywhere about us the evidences of greater cooperation, of standardization in production and of more thorough organization of all our activities—signs which augur well for future victory, for it is only by beating Germany at her own game that we can hope to win this war quickly.

The increase of efficiency by organization

¹ Invitation paper before Section G of the American Association for the Advancement of Science, in joint session with the Botanical Society of America and the American Phytopathological Society in a symposium on War Problems in Botany, Pittsburgh, December 29, 1917.

is no new discovery of the Germans or of this time of war. The remarkable development of American industry has been due in a large measure to the capacity of our business men for organization. But Americans are independent beings and have feared the evils of excessive organization—the curbing of personal freedom and initiative, and the reduction of the individual to the level of a cog in a smoothly running machine. The evils arising from over-organization are probably more to be deplored than those due to under-organization. Neither extreme develops the highest type of human being nor makes for lasting human progress. But in these times of stress we must not hesitate—the necessity for more thorough organization in all lines is forced upon us, and botanists, together with other scientists, must heed the call. This is a scientific war and science, not brute-force, must win it. Scientific workers become individualistic, and pure research naturally shuns the publicity of organization, but many lines of research and applied science in general are as much benefited by cooperation as is any industry.

Nowhere is the need for organization greater than in connection with the food supply, the importance of whose problems has been pressed upon our attention by the prevailing high prices and by the shortage of sugar and other important food stuffs. The relation of botanists to food production is a vital one and as botanists we now carry a grave responsibility.

We also face a wonderful opportunity. In the past botany has failed to receive the full measure of popular appreciation it deserves, though no subject is more vitally connected with human welfare and human progress than the study of plants. Botany is one of the oldest of human studies, yet we have seen other sciences of smaller ac-